

Claims:

1. A method of analyzing the characteristics of a web of material, comprising:  
imaging at least a portion of a web to provide digital information;  
processing the digital information with an initial algorithm to identify regions on the  
5 web containing anomalies;  
placing fiducial marks on the web;  
recording positional information localizing the identified regions relative to the  
fiducial marks; and  
applying locating marks to the web identifying the position of at least some of the  
10 anomalies, using the positional information and the fiducial marks as a guide.

2. The method according to claim 1 wherein the position of only the anomalies that  
qualify as actual defects with respect to the contemplated end use of the web are identified  
with locating marks.

3. The method according to claim 2 further comprising  
extracting identified regions from the digital information, and  
analyzing the extracted identified regions with at least one subsequent algorithm to  
determine which anomalies represent actual defects with respect to the contemplated end use  
20 of the web.

4. The method according to claim 3 further comprising storing or buffering the  
identified regions prior to analyzing.

5. The method according to claim 4 wherein the stored or buffered information is  
analyzed after the imaging has been performed on the entire web.

6. The method according to claim 1 further comprising winding the web onto a roll  
between the placing step and the applying step.

7. The method according to claim 1 wherein the locating marks are on or adjacent to the anomalies whose position they identify.

5 8. The method according to claim 1 wherein the locating marks are spaced in a predetermined way from the anomalies whose position they identify.

9. A system for marking a web of material, comprising:  
a fiducial marker for applying fiducial marks to the web;  
an inspection module for imaging at least a portion of a web to provide digital  
10 information, processing the digital information with an initial algorithm to identify regions on the web containing anomalies, and recording positional information localizing the identified regions relative to the fiducial marks;  
a fiducial reader for reading and providing localizing information from the fiducial  
marks,  
15 a web marker for applying locating marks to the web, and  
a web marker controller for controlling the web marker so as to apply locating marks to the web identifying the position of at least some of the anomalies, using the positional information and the localizing information as a guide.

20 10. The system according to claim 9 wherein the web marker applies locating marks identifying the position of only the anomalies that qualify as actual defects with respect to a contemplated end use of the web.

11. The system according to claim 10 wherein the inspection module extracts  
25 identified regions from the digital information, and wherein the system further comprises  
a processor associated with the web marker controller for analyzing the extracted identified regions with at least one subsequent algorithm to determine which anomalies represent actual defects with respect to the contemplated end use of the web.

12. The system according to claim 11 wherein the inspection module stores or buffers the identified regions for the processor.

13. The system according to claim 9 wherein the fiducial marker and the inspection  
5 module are associated with a first webhandling apparatus, and wherein the fiducial reader, the web marker, and the web marker controller are associated with a second webhandling apparatus.

14. The system according to claim 9 wherein the web marker places locating marks on  
10 or adjacent to the anomalies whose position they identify.

15. The system according to claim 9 wherein the web marker places locating marks that are spaced in a predetermined way from the anomalies whose position they identify.

15 16. A marking apparatus for marking a web of material having fiducial marks thereon, utilizing a digital map comprising positional information of web anomalies relative to the fiducial marks, the marking apparatus comprising:

a fiducial reader for reading and providing localizing information from the fiducial marks,

20 a web marker for applying locating marks to the web, and

a web marker controller for controlling the web marker so as to apply locating marks to the web identifying the position of at least some of the anomalies, using the positional information and the localizing information as a guide.

25 17. The apparatus according to claim 16 wherein the digital map further comprises information concerning the nature of the web anomalies, and wherein the web marker marks only the anomalies that qualify as actual defects with respect to a contemplated end use of the web.

18. A method of marking a web of material having fiduciary marks and possibly web anomalies thereon, comprising:

providing a digital map comprising positional information of the web anomalies relative to the fiducial marks,

5       applying locating marks to the web identifying the position of at least some of the anomalies, using the positional information and the fiducial marks as a guide.

19. The method according to claim 18 further comprising

extracting identified regions from the digital information, and

10       analyzing the extracted identified regions with at least one subsequent algorithm to determine which anomalies represent actual defects with respect to the contemplated end use of the web.

20. The method according to claim 19 further comprising storing or buffering the

15       identified regions prior to analyzing.

21. The method according to claim 18 further comprising winding the web onto a roll prior to applying the locating marks.

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